FIG. 1

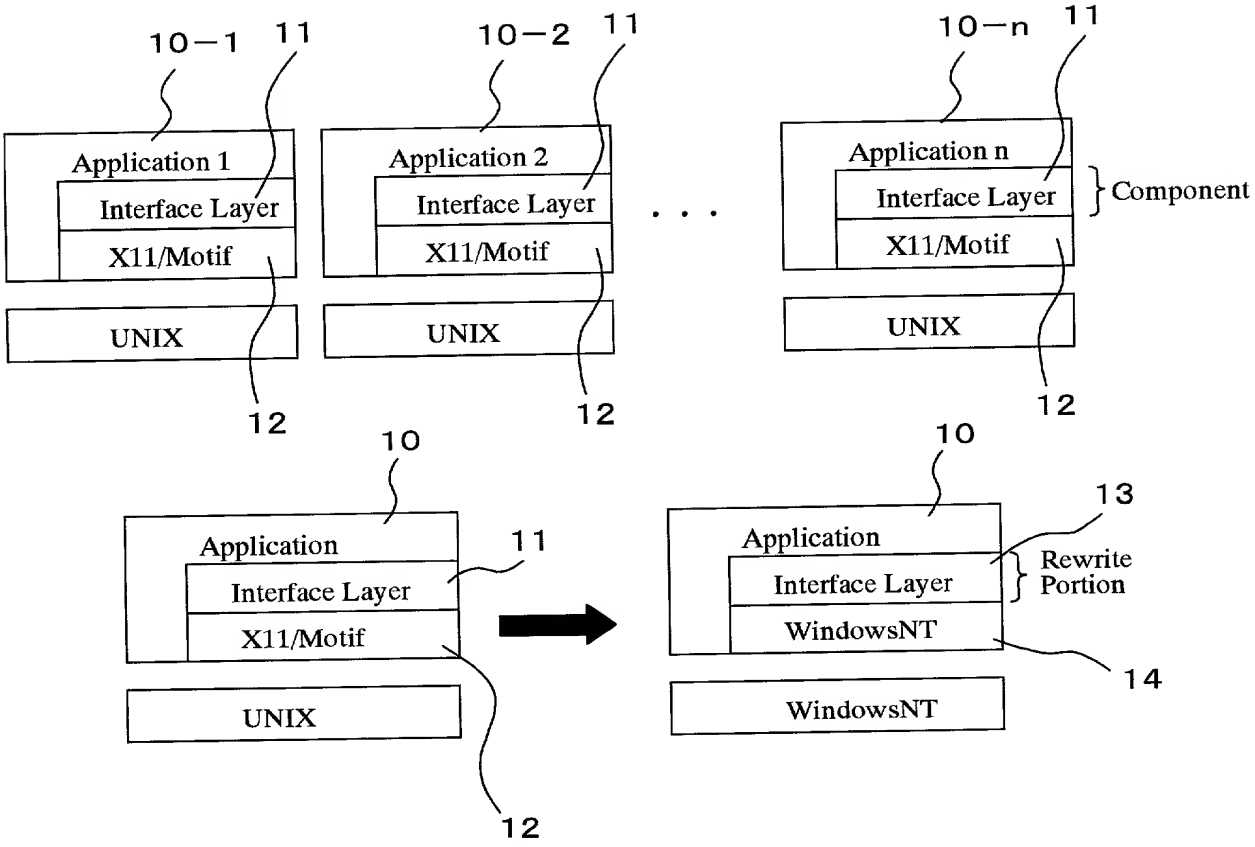

10−1
11
Application 1
Interface Layer
X11/Motif
UNIX
12
10−2
11
Application 2
Interface Layer
X11/Motif
UNIX
12
10−n
11
Application n
Interface Layer
X11/Motif
Component
UNIX
12
10
Application
Interface Layer
X11/Motif
11
UNIX
12
10
13
Application
Interface Layer
Rewrite Portion
WindowsNT
14
WindowsNT

FIG. 2

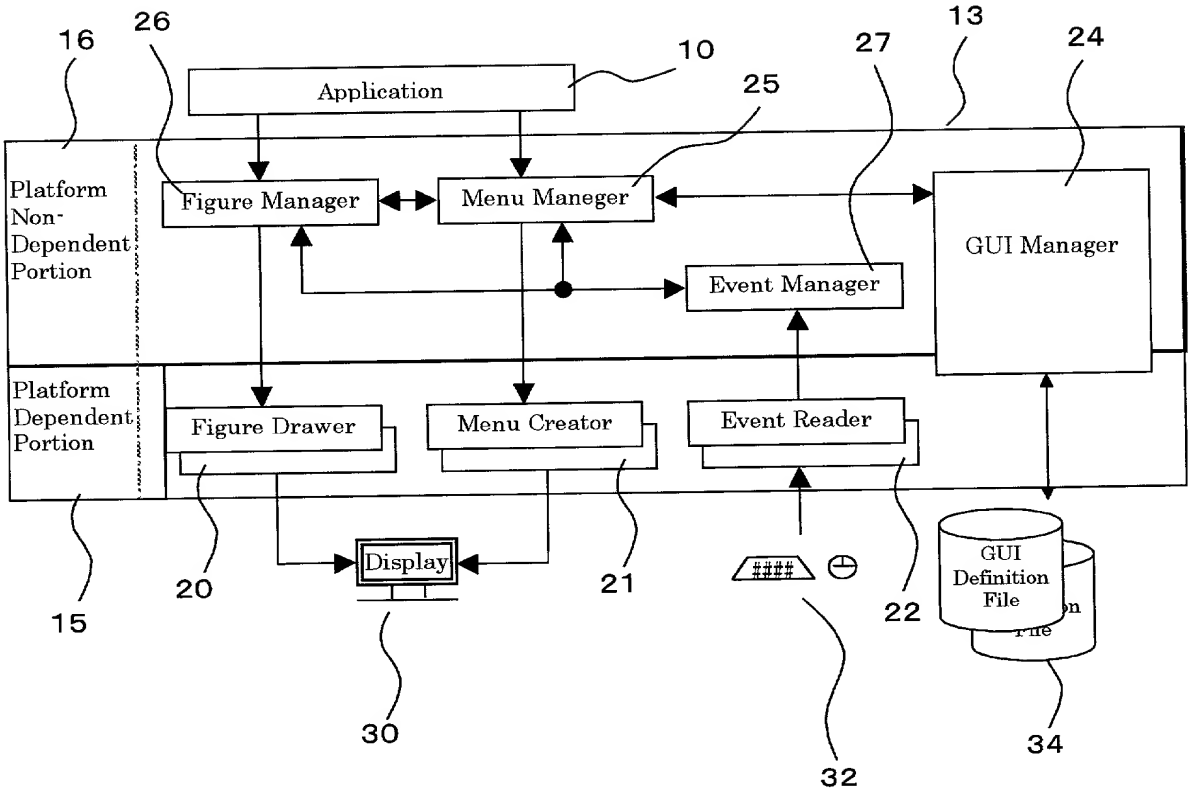

16
26
10
27
13
24
25
Application
Platform Non-Dependent Portion
Figure Manager
Menu Maneger
GUI Manager
Event Manager
Platform Dependent Portion
Figure Drawer
Menu Creator
Event Reader
Display
GUI Definition File
15
20
21
22
30
32
34

FIG. 3

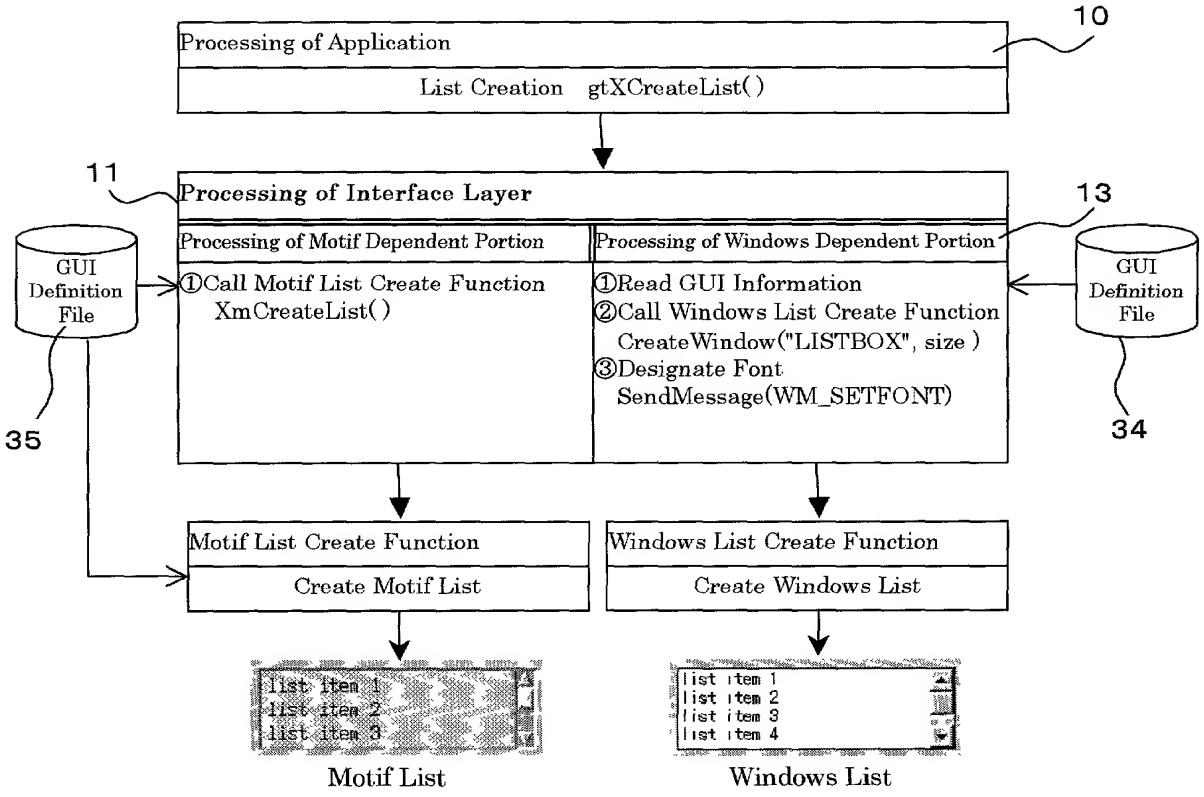

Processing of Application
List Creation gtXCreateList( )
10
11
Processing of Interface Layer
13
Processing of Motif Dependent Portion
Processing of Windows Dependent Portion
GUI Definition File
①Call Motif List Create Function
XmCreateList( )
①Read GUI Information
②Call Windows List Create Function
CreateWindow("LISTBOX", size)
③Designate Font
SendMessage(WM_SETFONT)
GUI Definition File
35
34
Motif List Create Function
Create Motif List
Windows List Create Function
Create Windows List
list item 1
list item 2
list item 3
list item 4
Motif List
Windows List

FIG. 4

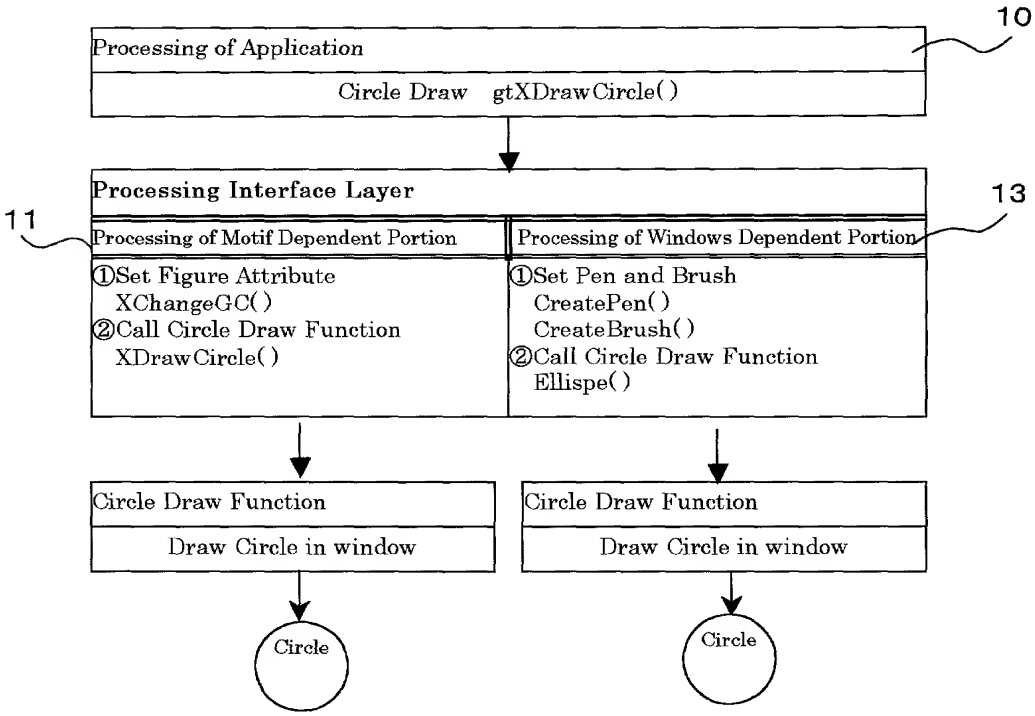

Processing of Application
Circle Draw gtXDrawCircle( )
10
Processing Interface Layer
13
11
Processing of Motif Dependent Portion
Processing of Windows Dependent Portion
①Set Figure Attribute
XChangeGC( )
②Call Circle Draw Function
XDrawCircle( )
①Set Pen and Brush
CreatePen( )
CreateBrush( )
②Call Circle Draw Function
Ellispe( )
Circle Draw Function
Draw Circle in window
Circle Draw Function
Draw Circle in window
Circle
Circle

FIG. 5

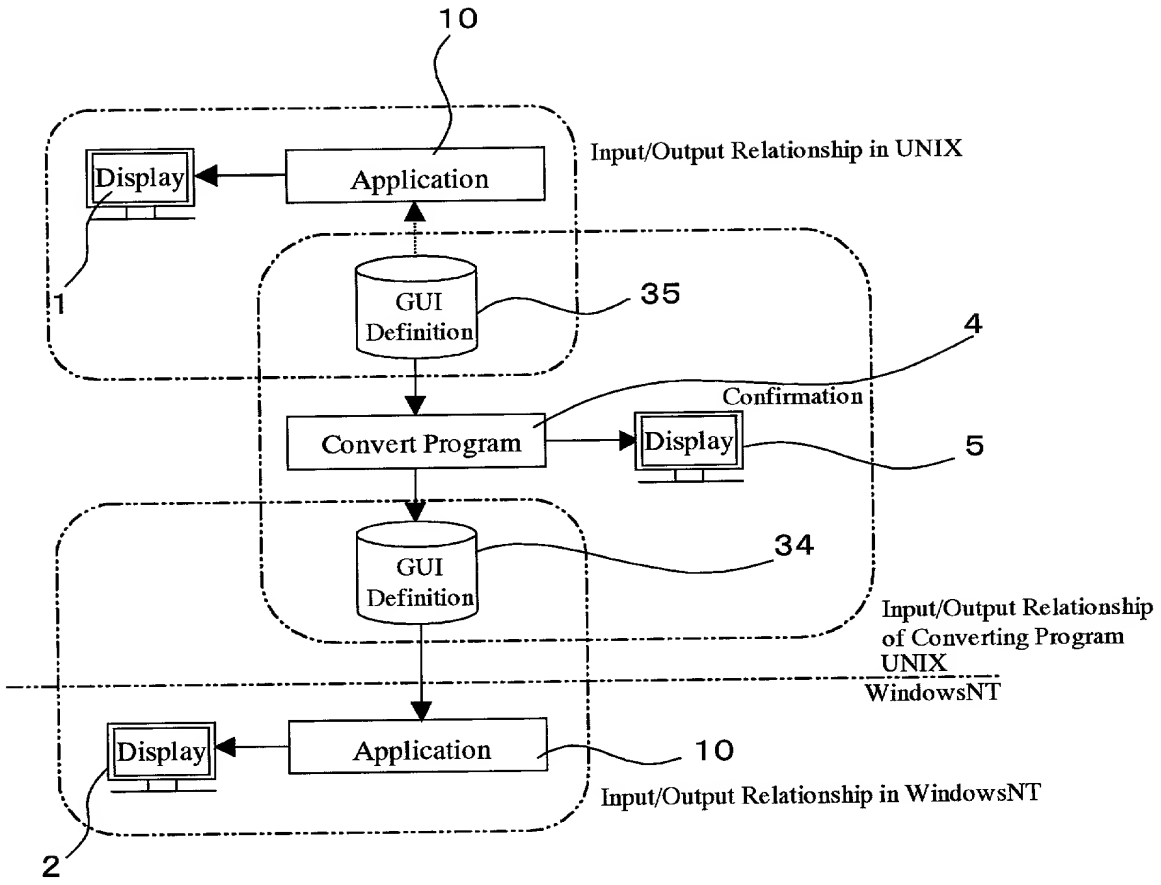

10
Input/Output Relationship in UNIX
Display
Application
1
GUI
Definition
35
4
Confirmation
Convert Program
Display
5
GUI
Definition
34
Input/Output Relationship
of Converting Program
UNIX
WindowsNT
Display
Application
10
Input/Output Relationship in WindowsNT
2

FIG. 6

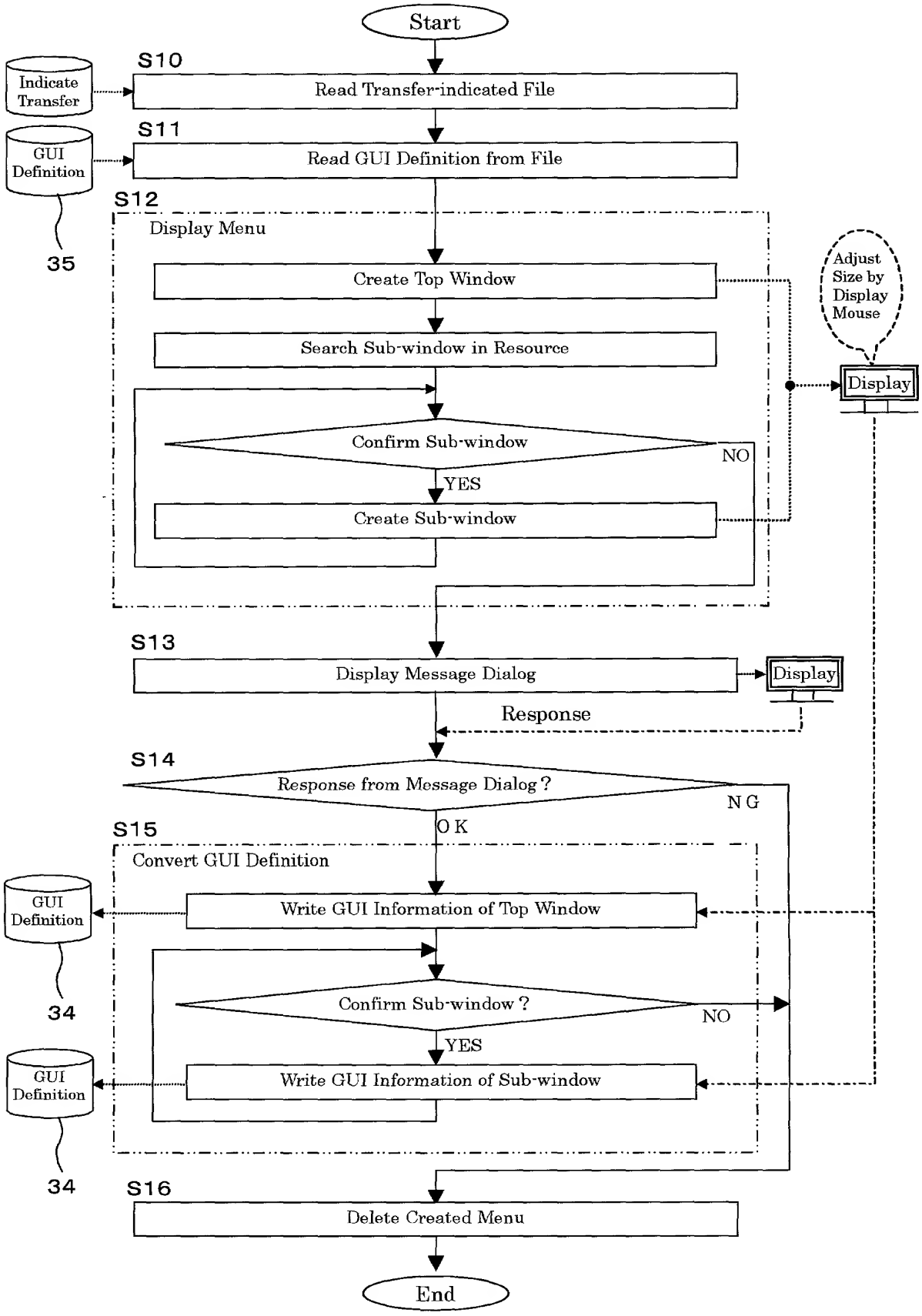

Start
S10
Indicate Transfer
Read Transfer-indicated File
S11
GUI Definition
Read GUI Definition from File
S12
Display Menu
35
Create Top Window
Search Sub-window in Resource
Confirm Sub-window
NO
YES
Create Sub-window
Adjust Size by Display Mouse
Display
S13
Display Message Dialog
Display
Response
S14
Response from Message Dialog ?
NG
OK
S15
Convert GUI Definition
GUI Definition
Write GUI Information of Top Window
34
Confirm Sub-window ?
NO
YES
GUI Definition
Write GUI Information of Sub-window
34
S16
Delete Created Menu
End

FIG. 7

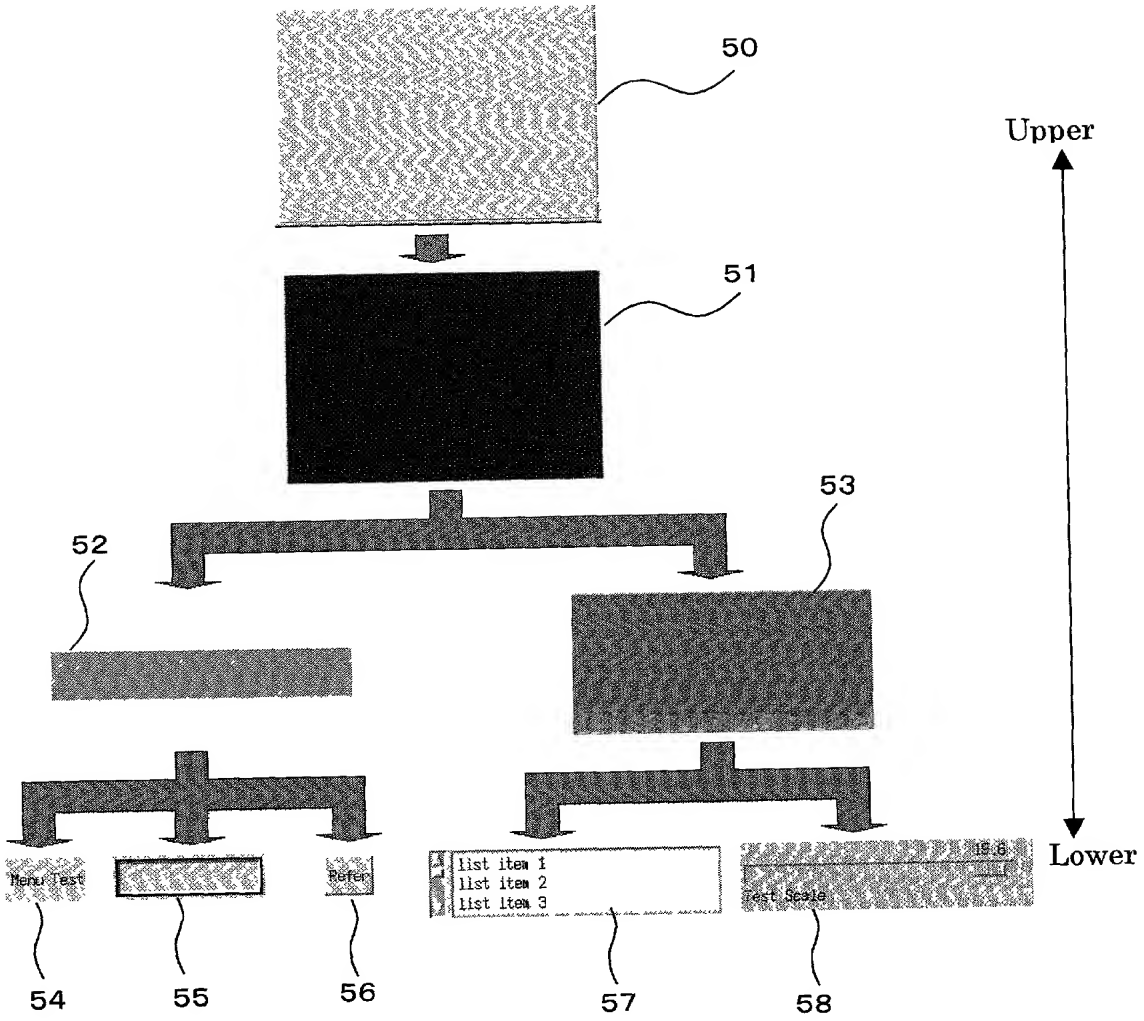
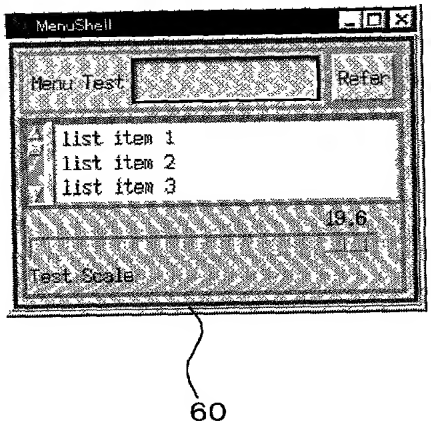


FIG. 8

X11/Motif Menu



WindowsNT Menu

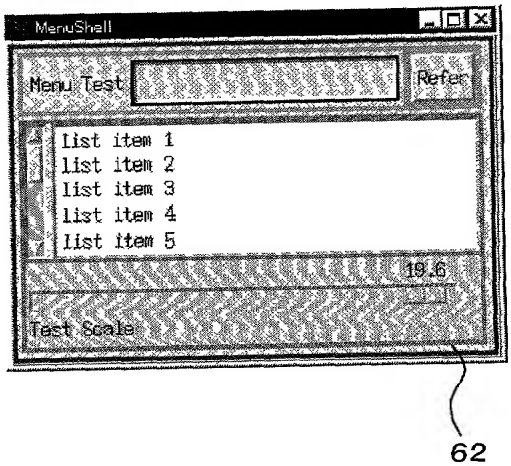
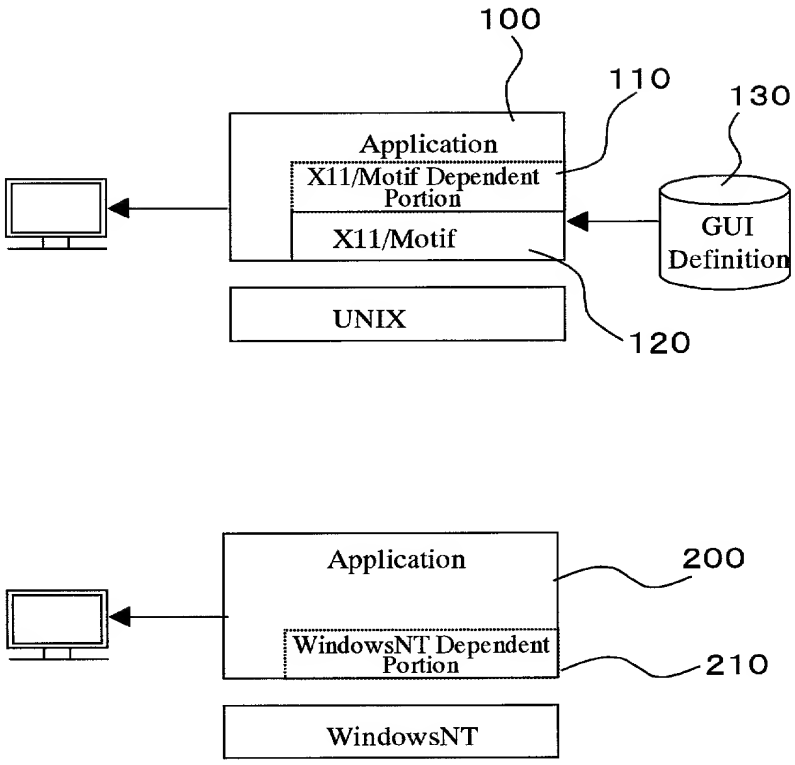


FIG. 9

```
MenuShell.x:                                    100
MenuShell.y:                                    285
MenuShell.width:                                308
MenuShell.height:                               192
MenuShell*main.bottomOffset:                    3
MenuShell*top.background:                       red
MenuShell*menu.rc6.orientation:                 HORIZONTAL
MenuShell*menu.rc6.background:                  cyan
MenuShell*menu.rc6.txt6.orientation:            HORIZONTAL
MenuShell*menu.rc6.txt6.prefix.labelString:     Menu Test
MenuShell*menu.rc6.txt6.prefix.y:               6
MenuShell*menu.rc6.txt6.text.prefix:            True
MenuShell*menu.rc6.txt6.text.width:             160
MenuShell*menu.rc6.ref.labelString:             Refer
MenuShell*menu.rc7.background:                  Green
MenuShell*menu.rc7.orientation:                 VERTICAL
MenuShell*menu.rc7*list7.background:            pink
MenuShell*menu.rc7*list7.scrollBarDisplayPolicy:    AS_NEEDED
MenuShell*menu.rc7*list7.listSizePolicy         CONSTANT
MenuShell*menu.rc7*list7.visibleItemCount:      3
MenuShell*menu.rc7*list7.items:                 list item 1, list item 2,
list item 3, list item 4, list item 5, list item 6
MenuShell*menu.rc7*list7.itemCount:             6
MenuShell*menu.rc7*list7.doubleClick:           False
MenuShell*menu.rc7*list7.selectionPolicy:       MULTIPLE_SELECT
MenuShell*menu.rc7*scale7.height:               60
MenuShell*menu.rc7*scale7.background:           yellow
MenuShell*menu.rc7*scale7.decimalPoints:        1
MenuShell*menu.rc7*scale7.minimum:              0
MenuShell*menu.rc7*scale7.maximum:              200
MenuShell*menu.rc7*scale7.orientation:          HORIZONTAL
MenuShell*menu.rc7*scale7.scaleHeight:          20
MenuShell*menu.rc7*scale7.scaleWidth:           280
MenuShell*menu.rc7*scale7.showValue:            True
MenuShell*menu.rc7*scale7.titleString:          Test Scale
```

FIG. 10

```
MenuShell.x: 100
MenuShell.y: 285
MenuShell.width: 308
MenuShell.height: 192
MenuShell*main.x: 3
MenuShell*main.y: 3
MenuShell*main.width: 298
MenuShell*main.heigth: 182
MenuShell*main*menu.x: 3
MenuShell*main*menu.y: 3
MenuShell*main*menu.width: 296
MenuShell*main*menu.heigth: 181
MenuShell*main*menu.rc6.x: 6
MenuShell*main*menu.rc6.y: 6
MenuShell*main*menu.rc6.width: 290
MenuShell*main*menu.rc6.height: 46
MenuShell*main*menu.rc6*txt6.x: 9
MenuShell*main*menu.rc6*txt6.y: 9
MenuShell*main*menu.rc6*txt6.width: 234
MenuShell*main*menu.rc6*txt6.height: 40
MenuShell*main*menu.rc6*txt6.prefix.x: 12
MenuShell*:main*menu.rc6*txt6.prefix.y: 12
MenuShell*main*menu.rc6*txt6.prefix.width: 67
MenuShell*main*menu.rc6*txt6.prefix.height: 34
MenuShell*main*menu.rc6*txt6.text.x: 82
MenuShell*main*menu.rc6*txt6.text.y: 12
MenuShell*main*menu.rc6*txt6.text.width: 158
MenuShell*main*menu.rc6*txt6.text.height: 34
MenuShell*main*menu.rc6.ref.x: 246
MenuShell*main*menu.rc6.ref.y: 9
MenuShell*main*menu.rc6.ref.width: 47
MenuShell*main*menu.rc6.ref.height: 40
MenuShell*main*menu.rc7.x: 6
MenuShell*main*menu.rc7.y: 55
MenuShell*main*menu.rc7.width: 290
```

FIG. 11

Prior Art